

## RELIEF MODEL

### RELIEF MODEL:

Work which represents an object in three dimensions, at a certain **scale**: representation of a city or a region, showing the principal constructions and the ground irregularities which have some importance. (Tr. from Encyclopédie Grand Larousse).

"The Napoleonic Empire renamed "plan-relief" the old "plans en relief", term which the Ancien Régime used to indicate the models of fortified cities or places". They were built in order to imagine the possible type of attack at the time of the canon ball and the fortifications. The choice of the subjects was directly dictated by the war strategies, the goal being to obtain the invulnerability of the borders. (1)

The term was defined in 1229 AD, in China, and applied to a stele (engraved stone) representative of the plan of the town of Suzhou. In France, the history of the strategic model cannot be distinguished from that of the bastion fortifications. The first plan of which one has a trace is that of Rhodes, carried out in 1521, with an eminently military aim. It is also in Rhodes that the bastion fortification is developed, at the same time.

In 1668, shortly after the Treaty of Aachen, which put an end to the war of Devolution, France acquired several Northern cities which made it necessary to strengthen the new border to avoid losing them again in the event of a conflict. Vauban, who was then busy with the construction of the defensive enclosure of the town of Ath, received from Louvois a commission to

*" Il y a un relief de Namur dans les Tuileries, je vous demanderai d'avoir la complaisance d'y venir avec moi. Je vous ferai toucher au doigt et à l'œil tous les défauts de cette place, qui sont en bon nombre, et en même temps vous ferai voir et apercevoir comment ce pourrait corriger celui que l'on m'impute. "*

Communication de Vauban à Le Pelletier, président de l'Assemblée Constituante.

carry out its relief model (2). The War Minister had considered as essential the overall representation to control work on the spot. This model marks the starting point of a standardized collection. The fundamental change lies in the uniform scale (one foot for one hundred toises, which is equivalent in our metric system - legal since 1799 - to the 1 in 600 scale).

In 1715, this process seduced Louis XIV who understood its interest for the military art. The gathering of these models in a single place made it possible to embrace at a glance the fortified points disseminated on the borders. Personal objects, hidden from view, the relief models are transformed into symbolic stakes made for parade and dissuasion. The collection is a sign of reality and possession; it magnifies the royal authority. In particular the relief models of Château-Trompette (Bordeaux) or the Mont Saint-Michel, which were carried out on a more detailed scale, were more of a "princely toy". Presented to be seen, they lose quickly their original dryness to acquire the stature of a work of art.

In the reign of Louis XV, in 1750, the activity intensified. On the one hand, one undertook the overall restoration of the old models; in addition, one built immense pieces such as the model of Briançon, which took 5 years.

The architects Soufflot and Gabriel - who considered the relief models as "trinkets not deserving to be preserved" - convinced Louis XVI to free the gallery of the models to install a collection of paintings there. Because of the number and size of the models, the attics of the Hotel of the Invalids, then used as corn lofts, were retained to receive them. Many of them had to undergo repairs following this removal. This is why, no new model was undertaken during nearly 20 years.

In the 18th century, the siege war was forsaken little by little. One sees the technique of the relief model improving of par with the development of cartograph (3) leading to the appearance of the contour lines.

Under Napoleon, the plan-relief constitutes a response to the limits of graphical representation of the plans.

The Emperor also commissioned the relief models of the great battles of the Empire, to serve the instruction of officers (4).

The activity of the relief models ends with the Franco-Prussian conflict (1870) and the arrival of the rifled barrel artillery.

Dependent on military requirements, the relief models had to be an exact representation of the site (5). Therefore, nowadays, they constitute a "faithful town planning memory". They are supports for research on urban evolution; it is also to that end that Ch. Pattyn, chief of the relief model mission in 1986-1990 could promote the collection located at the Invalides museum.

The relief models made it possible to give panoramic and synthetic views before the appearance of air recognition and digital images. They gave way, today, to the city models of which constitute tools for research on urban development and its teaching.

Cf. SCALE, CITY MODEL

